

**AMENDMENTS TO THE CLAIMS**

The claims in this listing will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) Radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~powders~~ powder comprising at least one of radiation-chemically ~~and/or~~ and plasma-chemically modified ~~PTFE~~ ~~powders~~ polytetrafluoroethylene powder including a surface, ~~on the particle~~ ~~surfaces of which~~ and homopolymers, copolymers or terpolymers are radically coupled on the surface via a reaction in dispersion or in substance.
2. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~powders~~ powder according to claim 1, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified.
3. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~powders~~ powder according to claim 1, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 50 kGy.
4. (Currently Amended) ~~Radically~~ The radically coupled ~~PTFE~~ polytetrafluoroethylene polymer ~~powders~~ powder according to claim 3, ~~in which~~ wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 100 kGy.

5. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer powders powder according to claim 1, in which wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified in the presence of reactants.

6. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer powders powder according to claim 5, in which wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified under the influence of oxygen.

7. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer powders powder according to claim 1, in which wherein styrene, acrylonitrile, maleic anhydride, acrylic acid, (meth-) methyl acrylate, vinyl acetate, glycidyl methacrylate, (meth-) acrylamide compounds or mixtures thereof are added as polymerizable, olefinically unsaturated monomers.

8. (Currently Amended) Method for producing PTFE a radically coupled polytetrafluoroethylene polymer powders powder according to one of claims 1 through 7, in which PTFE powders comprising at least one of radiation-chemically and plasma-chemically modified polytetrafluoroethylene powder including a surface, and homopolymers, copolymers or terpolymers radically coupled on the surface via a reaction in dispersion or in substance, comprising reactively converting polytetrafluoroethylene powder that is at least one of radiation- chemical and plasma-chemical modified and has with reactive perfluoroalkyl-(peroxy) radical centers are reactively converted after a radiation chemical and/or plasma chemical modification centers, in dispersion or substance with the addition of polymerizable, olefinically unsaturated monomers, whereby during the reaction so that a polymer-forming reaction to homopolymers, copolymers or terpolymers on the PTFE polytetrafluoroethylene powder is realized obtained.

9. (Currently Amended) ~~Method~~ The method according to claim 8, in which wherein the ~~PTFE~~ powders polytetrafluoroethylene powder with reactive perfluoroalkyl-(peroxy) radical centers after [[a]] at least one of radiation-chemical and/or and plasma-chemical modification are is subjected to a tempering at low temperatures yielding the reactive perfluoroalkyl-(peroxy) radical centers.

10. (Currently Amended) ~~Method~~ The method according to claim 8, in which wherein the polytetrafluoroethylene powder comprises radiation-chemically modified ~~PTFE~~ polytetrafluoroethylene powder is used.

11. (Currently Amended) ~~Method~~ The method according to claim 8, in which wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 50 kGy.

12. (Currently Amended) ~~Method~~ The method according to claim [[12]] 8, in which wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 100 kGy.

13. (Currently Amended) ~~Method~~ The method according to claim 8, in which wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified in ~~the~~ presence of reactants.

14. (Currently Amended) ~~Method~~ The method according to claim [[14]] 8, in which wherein the ~~PTFE~~ polytetrafluoroethylene powder is radiation-chemically modified under the influence of oxygen.

15. (Currently Amended) ~~Method~~ The method according to claim 8, in which wherein the ~~PTFE~~ polytetrafluoroethylene powder is used as a micropowder.

16. (Currently Amended) Method The method according to claim 8, in which wherein the reaction is realized performed in an autoclave or in a stirred tank or in an extruder/kneader.

17. (Currently Amended) Method The method according to claim 8 in which wherein olefinically unsaturated monomers comprise at least one of styrene, acrylonitrile, maleic anhydride, acrylic acid, (meth-)methyl acrylate, vinyl acetate, glycidyl methacrylate and (meth-)acrylamide compounds compound(s) are added as olefinically unsaturated monomers.

18. (Currently Amended) Method The method according to claim 8 in which wherein the olefinically unsaturated monomers comprise a mixture of monomers is used.

19. (Currently Amended) Method The method according to claim 8, in which wherein the olefinically unsaturated monomers comprise at least one of macromeres and/or and oligomers are used as polymerizable, olefinically unsaturated monomers.

20. (Currently Amended) Method The method according to claim 8, in which wherein the PTFE polytetrafluoroethylene polymer powders are provided with powder includes functional groups which in subsequent reactions are reacted with other low-molecular, oligomeric and/or polymeric substances.

21. (Currently Amended) Method The method according to claim 19, in which further comprising incorporating the PTFE polytetrafluoroethylene polymer powders are incorporated via compounding powder in plastics/polymers.

22. (Currently Amended) Method The method according to claim 20, in which wherein the PTFE polytetrafluoroethylene polymer powders are powder is incorporated into at least one of elastomers, and/or thermoplastics and/or and thermosets (and/or mixtures thereof).